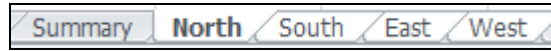


Tutorial 6: Managing Multiple Worksheets and Workbooks

Worksheet Group Concepts



anything you do in the active sheet is automatically done to every sheet in the worksheet group

ensures consistency and saves time

group can contain adjacent or non-adjacent worksheets

select **adjacent** sheets by clicking on the first, then hold _____ while clicking the last

select **non-adjacent** sheets by clicking on the first, then hold _____ while clicking others

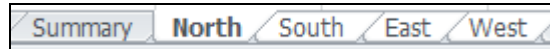
[Group] displayed in Title Bar

active sheet's name is bold

click a worksheet outside the group to ungroup the worksheets

Caution: editing/deleting/inserting while Group mode will mangle things if sheets don't all have same layout and structure. If you plan to change only one worksheet, be sure you're not in Group mode!

Demo Spreadsheets



1. Browse the structure of the 5 sheets.
2. Group the 4 regional sheets, as illustrated.
3. Edit the label in B1 to read Total Sales by Product.
4. Confirm that the change was made to each of the regional sheets.
5. Build appropriate formulas in row 8 to generate column totals in the 4 region sheets.
6. Confirm that each regional sheet's **All** row is working correctly.
7. Save your **Demo Spreadsheets** workbook.

3-D Cell Reference

a reference to a cell/range in another worksheet in the same workbook

general syntax **SheetName!CellRange**

```
=SUM(Quarter 1!B6)  
=SUM(Quarter 1!C16:J29)
```

if a worksheet name contains spaces, it must be enclosed in single quotes

```
= 'BMI Data'!D2 * 'BMI Data'!D3  
= 'Quarter 1'!B6 + 'Quarter 2'!B6 + 'Quarter 3'!B6 + 'Quarter 4'!B6
```

can reference the same cell in a range of adjacent sheets

general syntax **WorksheetRange!CellRange**

```
=SUM('Quarter 1:Quarter 4'!B6)
```

when two or more worksheets have identical row and column layouts, you can enter formulas with 3-D references to summarize those worksheets in another worksheet

	A	B	C	D	E	F
1		Total Sales by Product				
2		Product	Wholesale	Retail	Other	Total
3		Star 2000	5,514	5,911	4,325	15,750
4		Star 9000	2,721	2,504	2,514	7,739
5		Lancaster	3,348	3,421	3,511	10,280
6		Lancaster L	5,511	5,079	4,522	15,112
7		Lancaster XL	6,202	6,401	6,920	19,523
8		All	23,296	23,316	21,792	68,404

	A	B	C	D	E	F
1		Total Sales by Product				
2		Product	Wholesale	Retail	Other	Total
3		Star 2000	4,434	4,781	3,142	12,357
4		Star 9000	1,641	1,374	1,331	4,346
5		Lancaster	2,268	2,291	2,328	6,887
6		Lancaster L	4,431	3,949	3,339	11,719
7		Lancaster XL	5,122	5,271	5,737	16,130
8		All	17,896	17,666	15,877	51,439

	A	B	C	D	E	F
1		Total Sales by Product				
2		Product	Wholesale	Retail	Other	Total
3		Star 2000	6,208	6,395	4,893	17,496
4		Star 9000	3,415	2,988	3,082	9,485
5		Lancaster	4,042	3,905	4,079	12,026
6		Lancaster L	6,205	5,563	5,090	16,858
7		Lancaster XL	6,896	6,885	7,488	21,269
8		All	26,766	25,736	24,632	77,134

	A	B	C	D	E	F
1		Total Sales by Product				
2		Product	Wholesale	Retail	Other	Total
3		Star 2000	5,243	5,738	4,044	15,025
4		Star 9000	2,450	2,331	2,233	7,014
5		Lancaster	3,077	3,248	3,230	9,555
6		Lancaster L	5,240	4,906	4,241	14,387
7		Lancaster XL	5,931	6,228	6,639	18,798
8		All	21,941	22,451	20,387	64,779

	A	B	C	D	E	F
1		Total Sales				
2		Product	Wholesale	Retail	Other	Total
3		Star 2000	21,399	22,825	16,404	60,628
4		Star 9000	10,227	9,197	9,160	28,584
5		Lancaster	12,735	12,865	13,148	38,748
6		Lancaster L	21,387	19,497	17,192	58,076
7		Lancaster XL	24,151	24,785	26,784	75,720
8		All	89,899	89,169	82,688	261,756

Demo Spreadsheets: Summary worksheet

- Build a formula in C3 to calculate total Star 2000 Wholesale over all 4 regions, as illustrated above.
- Copy C3's formula to the cells in col C to determine all-region total Wholesale for each product.
- Copy the formulas in col B to cols D, E, and F to determine all-region totals for Retail, Other and Total for each product.

if you later **move** one of the worksheets outside the range or **delete** one of the worksheets, the 3D reference recalculates and no longer reflects the values in the moved/deleted worksheet

If you **insert** a new worksheet inside the range, the 3D references recalculate to include the new sheet's values

Demo Spreadsheets: Summary worksheet

- Move the **East** sheet to be after **BMI Form** sheet. What happens to the **Summary** sheet's values?
- Move the **East** sheet back to its original location. What happens to the **Summary** sheet's values?
- Save your **Demo Spreadsheets** workbook. Keep it open.

External Reference

a reference to cell/range in a worksheet in another workbook

Destination file receives the data from the **Source** file

general syntax **[WorkbookName]SheetName!CellRange**

= '[New Mexico.xlsx]Summary'!\$B\$6 * G88

if the workbook name or worksheet name contains spaces, the name must be enclosed in single quotes

when the source and destination workbooks are in **same** folder, need only include the name of the workbook

if source and destination workbooks are in **different** folders, the reference to the source workbook must include the file's complete location (path)

= 'C:\Sales Data\Recap\[New Mexico.xlsx]Summary'!\$B\$6 *G88

Practice Time

14. Create a new workbook, save it as **Tax Rates.xlsx** in the same folder as Demo Spreadsheets.xlsm.
15. Build the **Rates** sheet, as illustrated (right).
16. Build a formula in **Summary** sheet's cell C10 to calculate the Scottsdale tax liability.
17. Save Demo Spreadsheets.xlsm.
18. Close Demo Spreadsheets.xlsm (File > Close).
19. Remain in **Tax Rates.xlsx**.

	A	B
1	Scottsdale	8.95%
2	Phoenix	9.30%
3		

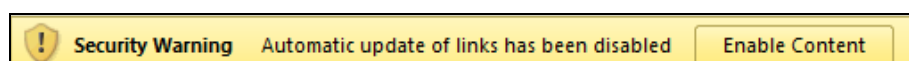
	A	B	C	D	E	F
1		Total Sales				
2	Product	Wholesale	Retail	Other	Total	
3	Star 2000	21,399	22,825	16,404	60,628	
4	Star 9000	10,227	9,197	9,160	28,584	
5	Lancaster	12,735	12,865	13,148	38,748	
6	Lancaster L	21,387	19,497	17,192	58,076	
7	Lancaster XL	24,151	24,785	26,784	75,720	
8	All	89,899	89,169	82,688	261,756	
9						
10	Sales Tax Liability	\$23,427.16				

Linked Workbook Concepts

when data in a source file changes, Excel automatically updates the destination file if it is also open

if the destination file is not open as source file is changed, destination file will reflect the **old values**

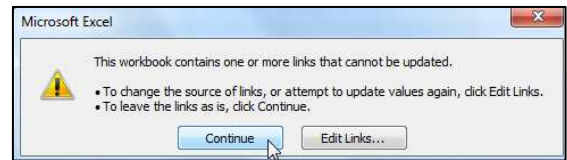
must explicitly ask Excel to update the destination workbook since links are not automatically updated (security reasons) and Excel displays a Security Warning



Practice Time

1. In as **Tax Rates.xlsx**, change Scottsdale tax rate to 10.00%.
2. Save.

3. Close **Tax Rates.xlsx** (File > Close).
4. Re-open Demo Spreadsheets (File > Recent). What Sales Tax Liability value is displayed?
5. Click Enable Content. What Sales Tax Liability value is displayed?
6. Save Demo Spreadsheets.xlsm.
7. Close Demo Spreadsheets.xlsm (File > Close).
8. Rename **Tax Rates.xlsx** to **Taxxxxxxxx Rates.xlsx**.
9. Re-open Demo Spreadsheets (File > Recent). Observe the error message.
10. Click Continue.
11. Close Demo Spreadsheets.xlsm (File > Close).
12. Rename **Taxxxxxxxx Rates.xlsx** to **Tax Rates.xlsx**.
13. Re-open Demo Spreadsheets (File > Recent). What do you see?



---- SESSION 3 -----

Template (.xltx)

a model for creating a new workbook

contains sheets with labels, formulas, formatting, graphs, pivot tables, macros ... but with data removed

a user creates a new workbook based on the template, then enters their own data

Make your own Template

1. build workbook (labels, formulas, formatting, graphs, pivot tables, macros, etc.)
2. clear the contents of data cells
3. File > Save As... > Excel Template (.xltx)

Practice Time

1. Close any open workbook(s), remain in Excel.
2. Create a new document from the Sample template named Billing Statement.
3. Change the address block info in cells B1:B4, as illustrated (right).
4. Use File > Save As to see what type of file this is.
5. Save it as an Excel Template (.xltx) named **MegaTelco Billing Statement**.
6. Close **MegaTelco Billing Statement.xltx**.
7. Create new workbook based on your **MegaTelco Billing Statement.xltx**.
8. Fill in data.
9. Save As **MegaTelco Billing Statement 30221**.... what file type is this?

	A	B	C
1		MegaTelCo, Inc	
2		829 W 3rd Street	
3		Suite 14100	
4		Wabasha, MN 55981	
5			
6		<i>Statement</i>	